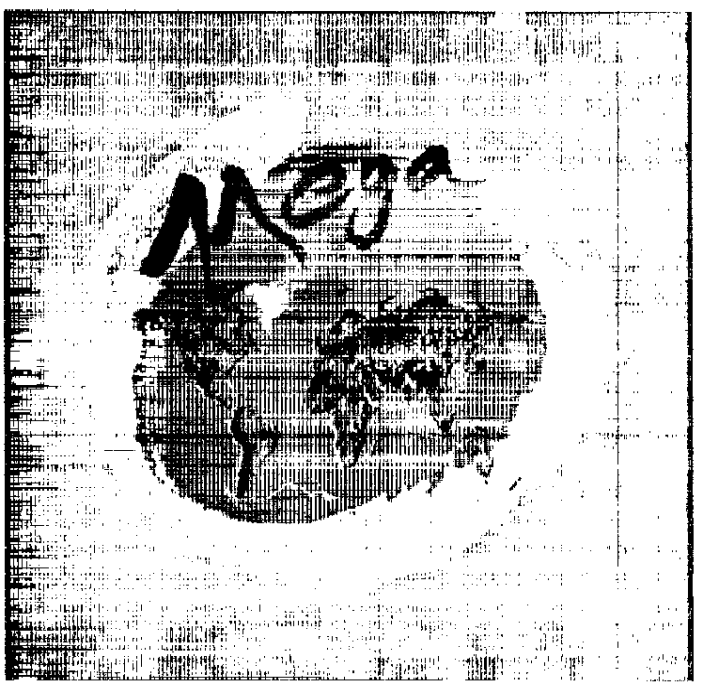
Mega Country Health Promotion Network
Behavioural Risk Factor Surveillance Guide

October 2002

This publication was produced by Westat under contract with the Association of State and Territorial Directors of Health Promotion and Public Health Education for the World Health Organization Department of NCD Prevention and Health Promotion. The persons responsible for the content are Nancy Speicher, Anne Kleiner, and Candi Hitchcock at Westat, in collaboration with Kathy Douglas and Sonia Fevre at the World Health Organization. The *Behavioral Risk Factor Surveillance System User's Guide* for the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services was an invaluable resource.

Mega Country Healtl Promotion Network



Behavioural Risk Facto Surveillance Guide

Annex 1

2nd Population-based Behavioural Risk Factor Surveillance Meeting
WHO Mega Country Health Promotion Network

Geneva, Switzerland
3-5 December, 2001

Agenda

Meeting Chair: David McQueen

Monday 3 December

Population-based behavioural risk factor surveillance meeting will begin at 13:30 in Room M605

13:30-13:50	**Welcome/introductions - David McQueen**
13:50-14:10	**Meeting background and objectives – Kathy Douglas** • Agenda • Document development • Identify reporter for joint plenary session on Wednesday
14:10-14:30	**Summaries of Finland global surveillance conference and Americas NCD Surveillance Summit – Fábio de Barros Correia Gomes and Mary Hall**
14:30-15:30	**Surveillance "system" perspective – David McQueen and Stefano Campostrini**
15:30-16:00	**Break**
16:00-17:00	**WHO STEPwise approach to NCD risk factor surveillance – Ruth Bonita, Max de Courten, Terry Dwyer**
17:00-17:30	**Questionnaire module development overview – Sonia Fèvre and Kathy Douglas**
18:00-19:30	**Joint reception for all three meetings** ***(WHO restaurant)***

Meeting Chairs: Bela Shah and Antonio Pedro Filipe, Junior

Tuesday 4 December

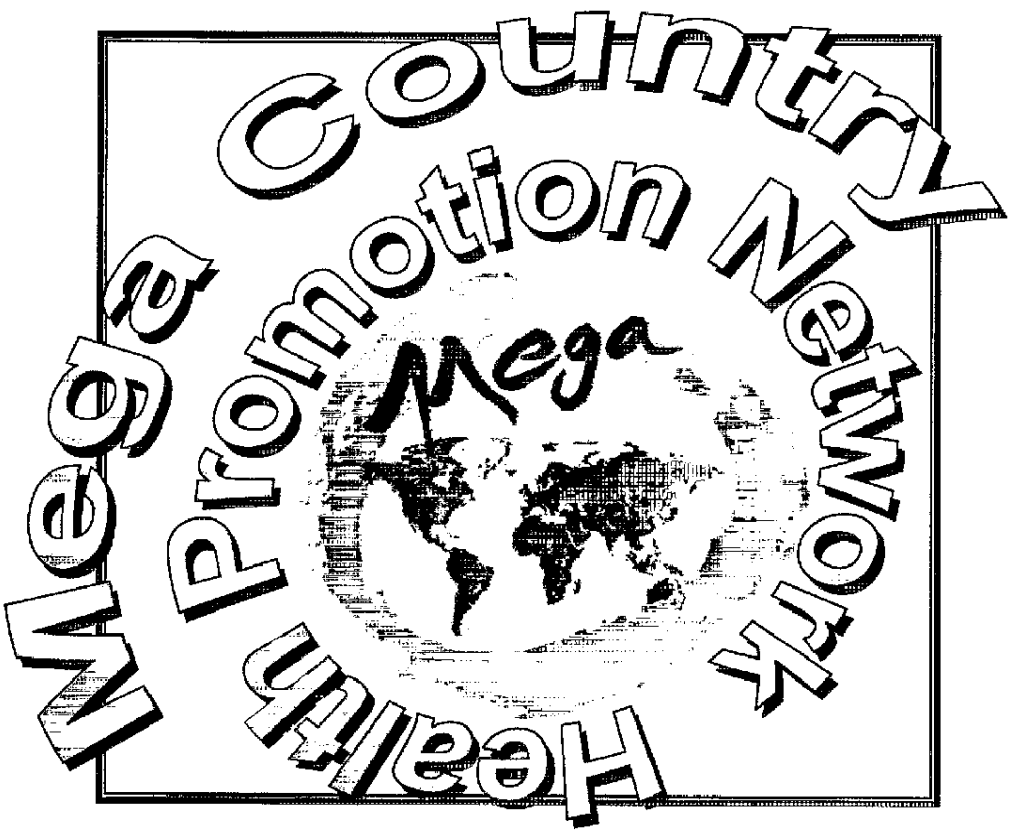
Meeting continues in Room M605

9:00 –10:30	**Questionnaire module development – brief presentations (10 minute max) and discussion** • Tobacco use – Nejma Macklai • Alcohol use – Nina Rehn • Physical activity – Michael Sjöström
10:30-11:00	**Break**
11:00-12:30	**Questionnaire module development – brief presentations (10 minute max) and discussion** • Diet – Pirjo Pietinen and Ulla Uusitalo • Mental health - Shekhar Saxena and Rangaswamy Srinivasa Murthy • Injury – Margie Peden and Kidist Bartolomeos
12:30-14:00	**Lunch**
14:00-15:30	**Questionnaire module development – brief presentations (10 minute max) and discussion** • Sexual Behaviours – Deborah Holtzman • Demographics – Max de Courten • Preventive health/health seeking Behaviours • Social context • BMI, Blood pressure • Health status
15:30-16:00	**Break**
16:00-16:30	**Supporting technical materials – Nancy Speicher**
16:30-17:30	**Small group work #1: Data comparability** **Report back to group**

WHO Mega Country Health Promotion Network

Summary Report from the 2nd Population-based Noncommunicable Disease (NCD) Behavioural Risk Factor Surveillance Meeting

Geneva, Switzerland
3-5 December 2001



Strengthening country capacity to establish and maintain behavioural risk factor surveillance systems

Bangladesh * Brazil * China * India * Indonesia * Japan * Mexico * Nigeria * Pakistan * Russian Federation * USA

WHO Mega Country Health Promotion Network

Summary Report from the 2nd Population-based Noncommunicable Disease (NCD) Behavioural Risk Factor Surveillance Meeting

Geneva, Switzerland
3-5 December 2001

Contents

1. Meeting Background

2. Summaries of Finland Global Surveillance Conference and Americas NCD Surveillance Summit

3. Surveillance "System" Perspective

4. WHO STEPwise Approach to NCD Risk Factor Surveillance (STEPS)

5. Questionnaire Module Development

6. Supporting Technical Materials Development

7. Small Group Discussion Topics: Data Comparability, Data Use, and Moving from Surveys to Surveillance

8. Summary of Country Presentations – Behavioural Surveillance Strategies, Next Steps and Country Needs

9. Key Issues Raised in the Meeting

10. Next Steps

Annex 1: Meeting Agenda
Annex 2: Participant List

1. Meeting Background

In response to the global disease burden transition, which projects that over 70% of the disease burden will be caused by NCDs, mental health disorders, and injuries by the year 2020, one goal of the Mega Country Health Promotion Network is to improve the evidence-base for NCD prevention and health promotion by strengthening country capacity to conduct population-based behavioural risk factor surveillance. A critical link has been established between health risk behaviours and NCDs, which provides the rationale for establishing public health programmes and policies directed at changing the prevalence of these risk behaviours in populations.

While systematic data collection may be found in the Mega countries to provide valuable information on communicable disease burden, the same is not true for NCDs. Consequently, behavioural risk factor surveillance is non-existent in most of these countries. This creates a tremendous imbalance of information and a huge gap at a time when the NCD disease transition has either already occurred or is currently occurring in these heavily populated countries. The present meeting served to advance the agenda for sustainable NCD behavioural risk factor surveillance data collection in the Mega countries.

This meeting continued the work started at the 13-14 September 2000 meeting, held in Atlanta, Georgia USA, and sponsored by the Centers for Disease Control and Prevention (CDC). Mega country surveillance and NCD prevention experts attended the Atlanta meeting to begin planning a systematic approach to behavioural risk factor surveillance—an approach that is concrete, scientifically-based, supports the WHO STEPwise Approach to NCD risk factor surveillance, and fosters sustainable, culturally-relevant data collection in each of the Mega countries.

At the Atlanta meeting, input was sought from the meeting participants to begin the development of three key products: (1) Protocol for conducting behavioural risk factor surveillance, (2) Questionnaire modules covering important NCD topic areas, and (3) Supporting technical materials. Since the first meeting, development work has begun on these three products.

Meeting objectives

The purpose of the second meeting was to provide the Mega countries with a forum to share information on their needs and progress with regard to establishing behavioural risk factor surveillance systems in their countries. Meeting objectives included:

- Explore ways to strengthen infrastructure support and a systematic approach for sustaining behavioural risk factor surveillance systems over time.
- Contribute to the collection of common NCD risk factors as recommended by the WHO STEPwise Approach to NCD risk factor surveillance.
- Address key surveillance issues of data comparability, effective use of data, and moving from surveys to surveillance.

- Present country surveillance strategies, current hurdles, future needs, and action steps for implementing and expanding behavioural surveillance efforts.
- Provide input into the development of: (a) Questionnaire modules and indicators for important NCD topic areas identified at the first Mega surveillance meeting and (b) technical materials to support the efforts.
- Finalize the surveillance protocol established after the first meeting and begin the development of a profile that summarises Mega country surveillance efforts.

Meeting presentations:

For more detailed information, all meeting presentations can be viewed at the following internet link[1]: <ftp://ftp.who.int/data/NMH/Mega-Meeting2001/>.

Meeting outputs:

- Finalised protocol
- Continued questionnaire module development
- Revision of supporting technical materials
- Development of surveillance profile among the Mega countries
- Preparation for behavioural surveillance implementation

2. Summaries of Finland Global Surveillance Conference and Americas NCD Surveillance Summit

Monitoring Health Behaviours—Towards Global Surveillance, Second International Conference, Tuusula, Finland, 1-3 October 2001

Meeting outcomes:

- Systematic surveillance approach:
  - Data collection needs to be approached from a systematic, national surveillance perspective, keeping in mind that surveillance systems often begin as surveys
  - Existing data collection efforts should be utilised and strengthened to avoid duplication of efforts
  - Guidelines and training are needed

- Cross-country comparisons:
  - Sharing surveillance experiences between countries is important
  - A balance of global and local needs should be maintained
  - It is difficult to find perfect cross-country indicators
  - Surveillance results will vary based on social context; therefore, social context indicators need to be collected along with NCD risk factors

[1] In order to view files, click on the ftp link and save files to disk *before* viewing.

- Using data more effectively:
  - Surveillance data need to be better linked to intervention and policy development; we must continue to explore how to close this gap
  - Better ties to stakeholders/users of the surveillance information are needed; it is important that stakeholders be involved up-front

Americas NCD Surveillance Summit, 27-29 August 2001

Meeting outcomes:

- Data Issues:
  - Resources and infrastructure for conducting surveillance in the Americas will be evaluated
  - A decision must be made on whether to use a core vs. modular approach in the Americas surveillance approach
  - A commitment to sustainability of surveillance efforts among the countries in the America region is important

- Roles and Expectations:
  - Take sustainability of surveillance systems into account when considering country/agency roles and expectations
  - Multi-sectoral collaboration is necessary
  - Increase dissemination of results

- Declaration for Finland meeting (excerpt):
  - "Participants in the Summit have made the pledge to call upon governmental and non-governmental agencies of the Americas to make a commitment towards the development and implementation of a Regional NCD and Risk Factor Surveillance Initiative, as one component of an emerging agenda for the control and prevention of NCDs and their risk factors."

3. Surveillance "System" Perspective

Presentation:

- In a population-based approach, individuals must be seen as the vessels that carry behavioural information.
- "Good data" necessarily includes good data interpretation and use, not simply the data collected.
- A surveillance system should have time built into it, according to defined rules, and all the surveillance system parts—data collection, interpretation, and use—should be linked together in real time.
- A surveillance system can be thought of as an *information system*: "a dynamic, coordinated set of elements capable of producing and exchanging information useful for decision-making."

- By linking data collection, interpretation, and use together, a surveillance system also can be thought of as a "*learning system*", whereby we gain cumulative knowledge to make improvements to the system as we go.

Discussion:

- Data use for different levels (local, national, global) must be considered; however, the ultimate purpose of surveillance data is to be useful at the local level.
- We need to help local people use the data so that they remain interested in the surveillance system efforts in the long-term.
- Overall, data collection efforts need to be better linked to policy and programme development.
- It is important to take a multi-risk factor approach rather than developing questionnaires for vertical programmatic or single health topic efforts.
- We need to increase our advocacy and data use skills to make sure that surveillance data gets used and does not sit on shelves.
- At some point, we will need to deal with increasing non-respondent issues.

4. WHO STEPwise Approach to NCD Risk Factor Surveillance (STEPS)

Presentation:

- STEPS is a conceptual framework that provides a common approach to defining core variables for surveys, surveillance, and monitoring instruments. The goal is to achieve data comparability over time and between countries.

- The conceptual framework consists of three steps that represent different levels of risk factor assessment: Steps 1, 2, and 3 reflect surveillance data collected through self-report questionnaires, physical measures, and blood samples, respectively; and three modules of questions involved in describing each risk factor: core, expanded, and optional questions.

- The goal is for countries to support the collection of common global indicators on the following NCD risk factors:

  Step 1: behavioural risk factors obtained by self
  - Tobacco use
  - Alcohol use
  - Physical inactivity
  - Nutrition

  Step 2: simple physical measures
  - Obesity (BMI--measured height and weight, waist)
  - Blood pressure

  Step 3: blood samples
  - Diabetes (blood glucose)
  - Cholesterol

- The first STEPS training session was held in Hobart, Australia in July 2001 to plan NCD risk factor surveillance implementation in Fiji, Samoa, Federated States of Micronesia, and three Mega countries: Indonesia, India, and Bangladesh.

- A "pre-step" survey will be developed to assess what type of data policy-makers want and need for undertaking NCD risk factor surveillance.

5. Questionnaire Module Development

The meeting focused on questionnaire module development of important NCD topic areas identified by the Mega country representatives from the 1st Mega Country behavioural risk factor surveillance meeting. The development of these modules complements the collection of the common global indicators recommended by the STEPS approach. Presentations of the topics, which are at varying stages of development, were delivered by content experts and are summarised below.

Tobacco use:

- The standardisation of indicators is a priority in tobacco use surveillance; concepts and definitions must remain constant over time.
- It is important that data are reported uniformly, i.e. using the same terminology and same structuring of subgroup ages.
- "*Guidelines for Controlling and Monitoring the Tobacco Epidemic*" (1998) offer standardised WHO questions on tobacco use. The smoker categories used are: Daily, occasional, and non-smoker, each with particular variants. The three main indicators assessed are frequency, duration and quantity of exposure.
- It is important to address smoking and smokeless tobacco separately, and to address passive smoking.
- From a public health perspective, it is important to know where smoking occurs (work/public place/home).
- Consistency within a country must come about before cross-country comparability is necessarily achieved.

Alcohol use:

- The global alcohol database can be found at www.alcoholinfo.org.
- "*International Guide for Monitoring Alcohol Consumption and Related Harm*" (2000) provides more detailed information.
- Core STEPS questions are proposed to assess the following minimum indicators, where "problem drinking" is defined as 5 drinks for men and 4 drinks for women:
  - % abstainers vs. drinkers
  - % low/medium/high drinkers
  - High risk occasional drinking
- Other important indicators are "tried to cut down" and "alcohol dependency."

- Outstanding issues include:
  - What is "a drink" and where is it consumed?
  - How do patterns of drinking lead to different levels of expected harm, according to place, day of the week, and occasions when consumption takes place?
  - How do we account for unreported alcohol consumption and how does this affect population-wide drinking patterns? (WHO is at present undertaking a study in several regions to trace unreported drinking.)
  - How do we account for cultural patterns of drinking (e.g., drinking at ceremonies) which may bias the "ever drink" category?
  - How can alcohol information affect policy, and what are the possible health promotion implications of surveillance data on drinking? (Thus far, WHO has been uninvolved in alcohol policy.)
- Consequences of drinking may be related to work, legal issues, injuries/ violence, driving, as well as health.
- The links with diet and nutrition, and mental health coping strategies, still need to be explored.

Physical Activity:

- Information on the International Physical Activity Questionnaire (IPAQ) can be found at: www.ipaq.ki.se.
- IPAQ has been developed as a tool for standardised global assessment of health-related physical activity.
- Physical activity is defined as *any bodily movement produced by skeletal muscle that results in energy expenditure*; health-enhancing physical activity is more than just exercise ("planned, structured and repetitive bodily movement done to improve or maintain fitness").
- It is important to assess all sorts of physical activity, including that done for leisure, at work, at home and as a means of transportation/travel.
- Standardising the assessment of physical activity means perfecting tools suitable for national surveys in all countries, and which cover all domains of activity.
- To account for cultural adaptation, IPAQ focuses on classes of activity and includes examples or "symptoms" to illustrate intensity. These examples can be altered to meet cultural needs.
- There are 8 versions of the questionnaire, four short and four long, covering both telephone-based and self-administered methods; the long version consists of 31 questions and the short version consists of 9 questions.
- The long version assesses four domains of activity: Job, transport, household and leisure; and covers vigorous, moderate, walking and sitting activities.
- Physical activity is very difficult to assess and IPAQ has worked with country and agency partners to examine reliability and validity (20 studies have been conducted).
- IPAQ can be used worldwide regardless of respondents' educational level.
- The reference period used is a determined period of time (e.g. 'past week') since asking about the "usual week" in this field is not reliable due to respondent overestimation, which can be up to 100%.
- The public health focus should be on *physical inactivity*, which is also easier to measure and produces the most valid results.

Diet:

- Common cross-country dietary questions remain one of the most difficult topic areas for questionnaire development.
- At the present time, WHO does not have a common surveillance instrument developed to assess quantitative dietary intake.
- The questions proposed thus far for surveillance purposes can only be expected to provide qualitative and semi-quantitative information on the dietary patterns of a population (consumption frequencies).
- Data on consumption frequencies can be obtained through tools such as a 24-hour recall survey or dietary record.
- The main focus of the questions being proposed is to track trends of both dietary risk and protective factors related to NCDs. In addition, the proposed questions identify certain determinants of dietary transition.
- The problem of accounting for both under- and over-nutrition needs further consideration.
- It is advisable to link dietary surveillance to specific country dietary guidelines. WHO questionnaire development in this area will thus follow WHO guideline development on nutrition/diet.

Mental Health:

- There are 3 levels of behavioural risk assessment factors contributing to mental health: (1) Individual, (2) family, and (3) community. Following the requirements of multi-risk factor surveillance, it will be necessary to identify an abbreviated list of risk factors at each level to reflect poor mental health.
- At the individual level, risk factors include life events and stress, coping behaviour, locus of control, disability and quality of life (QOL). It is proposed that questions focus on coping, QOL and locus of control.
- Family level indicators include integration, trust and bonding. It is proposed that questions focus on integration.
- Community level indicators include cohesion, tolerance, predictability, closed/open character and internal/external controls. It is suggested that questions focus on cohesion and predictability.
- This approach also should allow data analysis to capture if and/or how breaks in social support networks may be occurring.

Injury:

- The rationale for including injury in behavioural multi-risk factor surveillance is that injuries occur frequently, pose serious health threats and are preventable.
- This refers in particular to road traffic injuries (RTIs), interpersonal violence and self-inflicted injury. Road traffic injuries are a major cause of morbidity and mortality and important factors to monitor are visibility, speeding, seatbelt and helmet use and alcohol involvement.
- There is currently no injury data from existing population-based surveys on the following Mega countries: Bangladesh, India, Indonesia, Nigeria, Pakistan.

- Module development considerations to be addressed:
  - Risks differ according to fatal and non fatal injuries.
  - What behavioural characteristics increase the chance that an injury event will happen to a particular person?
  - There is possible overlap with modules on: Alcohol, health status, health-seeking behaviour, social context and demographics, which need further exploration.
  - How do we resolve the problem of under reporting of key issues such as domestic violence?
- Next steps for injury module development are to draft a minimum and optional list of indicators, and pilot test them.

Sexual Behaviours:

- Sexual behaviours are defined as behaviours that contribute to unintended pregnancies and sexually transmitted infections, including HIV infection.
- Information on the US Behavioral Risk Factor Surveillance System (BRFSS) can be found at www.cdc.gov/nccdphp/brfss.
- The BRFSS is a state-based surveillance system, conducted by all states and territories in the US, through the use of random telephone surveys.
- HIV-related measures on the BRFSS focus on both attitudes and practices.
- A module of HIV-related sexual behaviour questions was first developed in 1995, in partnership with the CDC AIDS Center. The 10-question module was first used by two states in 1996. Adoption of the module by other states rose considerably in the following year. However, over time, use of the module has gradually declined and may eventually be dropped. In part, this may be due to a lack of specific funding for the module.
- For multi-risk factor surveillance needs, it is important that a sexual behaviours module focus on the general population rather than on high-risk groups.
- UNAIDS also has identified indicators by programme areas and priority for different epidemic states. Programme area indicators relevant to the general population include:
  - Knowledge indicators, including knowledge of HIV prevention and incorrect beliefs abut HIV.
  - Voluntary counseling and testing indicators, including people who requested test and received results.
  - Sexual negotiation and attitudes, including women's ability to negotiate safe sex
  - Sexual behavioural practices, including high risk sex and condom use.

Demographics:

- Some demographic information, such as urban/rural residence, can be obtained from other sources, which reduces questionnaire burden
- Age reporting is a common problem for many countries and can be identified by landmark events
- Household income should be measured by national standard categories. Additional questions can be developed to include as optional questions, to help improve the quality of data collected.

- The occupation question should be comprehensive enough to account for categories of business.
- Mobility should be taken into account, in terms of the length of time an individual lives in a certain location

Social Context:

- This area requires a great deal of development.
- The BRFSS contains a social context module which can be referred to.
- Information collected in this area must always be directly usable; there should be a tight link between data collection and interventions to help evaluate the quality of these questions.

6. Supporting Technical Materials Development

- Background supporting surveillance technical materials for the Mega Country Health Promotion Network address the following topic areas:
  - Questionnaire development
  - Methodology
  - Sampling plan
  - Staff recruitment and training
  - Data collection and field operations
  - Data management
  - Data processing
  - Data analysis and reporting
- For each of the 8 topics, the following information is provided: Overview of the topic, a list of action steps and important considerations, goals and standards to be reached, and supporting resource materials and examples.

7. Small Group Discussion Topics -- Data Comparability, Data Use, and Moving from Surveys to Surveillance

Data comparability:

Points for discussion:

- **How do we balance global and local surveillance needs?**
- **What criteria should countries establish for use of country data in global/regional comparisons?**

- Why compare data across countries? Countries share similar problems and surveillance systems help to evaluate and monitor problems and epidemics. Common methodologies, and sharing information on problems and solutions can be beneficial. The first step is to ensure internal (national) comparability, and then move towards comparing problems and programmes.

- There must be a prioritisation of strategies, and consensus on *who* will pay for standardisation, which is costly.

- Good quality baseline survey data may be very useful for policy at the national level, but perhaps not so relevant at the global level. Therefore, global common questions should be limited to "core" questions, rather than including expanded options. Moreover, given the financial and practical costs, cross-country comparison is only feasible with a limited number of *global, core* questions which must be simple, generalizable, and contribute to the mapping of trends.

- It is clearly important to capitalise on existing national survey systems. Further, existing questionnaires that already offer good results and have begun to show trends should be maintained.

Data use:

Points for discussion:

- **Who are the data users?**
- **How de improve the link between data and policy/programme development?**
- **How can surveillance impact the way people do public health business?**
- **How do we motivate politicians to pay attention to data?**
- **How do we convince our populations about the relevance of information produced by surveillance?**
- **How should we involve stakeholders?**

- Noncommunicable diseases are not considered a priority for most governments, which has resulted in poor information, programme implementation and dissemination. Existing gaps between data and policy/programmes may be due to a lack of conviction by policy makers and politicians, and lack of commitment by medical professionals. It is thus crucial to increase the visibility of and need for surveillance.

- Surveillance data is potentially useful to: International agencies, donors, public and the media, policy makers, programme coordinators, food manufacturers, sports and tobacco industry, associations (e.g. diabetes association), universities and educational institutions, and medical institutions and hospitals.

- Surveillance data can be used for: Policy development, and programme/ intervention evaluation.

- The purpose of data collection should be connected to the data users; we should collect data with policy and programme needs in mind. Nevertheless, the burden lies on the surveillance professionals to collect relevant data and present it appropriately.

- To reinforce links between data and policy makers, policy makers must support data collection from the outset and we must guarantee that surveys will be conducted and used. In addition, we must create *demand* for the data, primarily through needs assessments of partners.

- We should make the most of successful existing models, such as those developed for linking tobacco use data to tobacco prevention efforts.

- Surveillance systems can impact public health by being used to help formulate strategies and identify research needs, and by being disseminated effectively through the media.

- Data can inform practical issues such as the number and types of public facilities needed, and how resources should best be allocated. For example, convincing politicians of the importance of data may require linking surveillance to a vote bank, showing the economic implications of the chronic disease burden and hospital burden, and encouraging civil society associations to put pressure on the government. Influence can come from a top-down approach (such as a WHO advising policy) and from a bottom-up approach of applying public pressure.

- Convincing populations is not easy, and requires effective media dissemination, emphasising the cost of treatments versus prevention, and education (through schools, seminars, and via healthcare workers).

- It is important that stakeholders be involved from the outset, although some may also become involved once data gathering has started, and will be drawn in if the data is effectively marketed. As stakeholder interests may be varied, different strategies may need to be developed.

Moving from surveys to surveillance:

Points for discussion:

- **What are the differences between conducting surveys for research and conducting surveys as a part of a public health surveillance system?**
- **How often should surveys be conducted?**
- **What kind of country assistance is needed to move towards a surveillance system approach?**

- There is a need for initial baseline and repeat surveys, using an integrated approach rather than separate research projects.

- The move from surveys to surveillance is partly about periodicity, but also about sustainability – in terms of allocation of resources, maintaining consistent objectives, survey methodology used and overall consistency over time, including use of the same questions and sample population over time. Moreover, with surveillance, the surveys are eventually incorporated into a national health information system. For countries that are not yet ready for this, the first step is to do repeat surveys as consistently as possible.

- Surveillance must be part of the government strategy for disease control and prevention.

- Lack of trained manpower, resources and infrastructure influence the feasibility of sustainability at this stage of surveillance system development.

- Any surveillance system must be adjusted to the country in which it is established, and will differ according to country resources.

- Support is needed for technical expertise and infrastructure building.

8. Summary of Country Presentations – Behavioural Surveillance Strategies, Next Steps and Country Needs

- Countries must have policy and environmental support in order to help change the behaviour of their populations. Therefore, questions to be addressed as multi-risk factor surveillance systems are being developed include:
  - How do we evaluate the impact of behavioural change on mortality rates?
  - How do we evaluate the impact of interventions?

- The main challenges for developing surveillance systems have to do with establishing the interval rate, capacity rate, and linking data collection to data use; as well as receiving training and technical support, developing advocacy and marketing strategies, and securing funding.

- An important step towards surveillance system sustainability involves strengthening links across existing and planned surveys and increasing intersectoral coordination. This involves using universities to work closely with governments and maintaining communication with the Mega country Network .

- Decision-makers are still focused on communicable disease problems and have resistance to considering NCDs as a priority. This must be overcome through information dissemination on the impact that NCDs and their risk factors have on population health.

- In most countries, there is still a vertical approach to surveillance. Further, most survey information is not disseminated.

- There are concerns about trying to integrate NCD surveillance with communicable disease surveillance because the measures being sought in both fields are different. However, It is important to capitalise on existing resources and systems, which may involve borrowing from CD surveillance expertise (e.g., with HIV field work that takes place in communities).

- We need to maintain a prevention focus and when relevant, incorporate additional health problems in the multi-risk factor approach such as rheumatic fever or sickle cell anaemia.

- We need to work closely with Regional Networks for NCD prevention and control (e.g., CINDI, CARMEN, etc.) and work with collaborating centres to avoid duplication of efforts.

- It will be important to develop a policy document for surveillance to involve policy-makers from the beginning.

- Many practical and methodological issues pose difficult challenges:
  - Dealing with bias (e.g., proportion of respondents by gender)
  - Obtaining good sampling frames
  - Seasonality (e.g., fasting months)
  - Recording the exact age of respondents
  - Reporting of incomes (respondents vary in ability to report annual or monthly income)
  - Sensitivity of certain issues in different countries (e.g., alcohol use, sexual behaviour and domestic violence)
  - Diet questions must be able to differentiate between cooked and uncooked foods, depending on culinary practices
  - Local examples must be provided on physical activity questions, as well as developing ways to identify accurate time spent on the activities that are being recalled
  - Anthropometric measures require the standardisation of instruments, including the use of the same equipment models to ensure comparability (even within a country)
  - Hip girth measurements will most likely need to be done with clothes on

- With regard to data collection and healthcare priorities, attention needs to be paid to the discrepancies between urban and rural areas.

- A surveillance system may need to be established and managed by many players, which creates complexity and would rely on effective communication and common interests.

- Sometimes a system can be built within an existing system, allowing for the integration of multiple surveys, and increasing efficiency and cost-effectiveness. Issues involved in such a project include standardisation of questionnaire and devices, resource limitation, geography, cultural diversity and sustainability. Possible solutions include networking and collaboration, empowering the local level and involving local authorities, selecting appropriate devices, and locating donor agency support.

Country presentations:

Complete country presentations can be viewed at the following internet link[2]: <ftp://ftp.who.int/data/NMH/Mega-Meeting2001/>.

[2] In order to view files, click on the ftp link and save files to disk *before* viewing.

9. Key Issues Raised in the Meeting

Moving from Surveys to Surveillance:

- Need for a clear-cut definition of surveillance, as opposed to surveys
- Methods must be unified but not at the expense of existing initiatives and systems; flexibility is paramount to allow for maximum country usefulness
- For countries that have not yet started, it is recommended to begin with a baseline survey as the first step in the surveillance system cycle
- Identify questions that are "good enough" rather than searching for "perfect" questions
- Each questionnaire module will need to be validated in the context of each country
- Do not wait for the perfect solution to all complex problems; rather, begin now and improve with time and experience
- Focus on effectively communicating surveillance results to overcome current problem of survey reports sitting on shelves in many countries, which has not helped to increase funding support
- In the future, the problem of increasing non-response will need to be addressed

Linking data to policy and programme development:

- Identify the different uses of surveillance data at different levels (local, national, regional, global)
- Assist local people in using the data to preserve their interest in data collection over the long-term
- Include data in surveillance systems that are clearly linked to policy
- Improve communication between surveillance and policy and programme experts. Remember that surveillance and policy/programme experts often work in different departments, agencies, or sectors; with policy experts who may not know how to read statistical tables, and with surveillance experts who may not best understand the policy/programme approach to be taken or audiences being addressed.
- Identify the ultimate policy goal for each NCD content area
- Improve advocacy to demonstrate the need for data

10. Next Steps

- Review the 2nd protocol draft and finalise by the end of January, 2002
- Continue questionnaire module development with input from countries
- Continue technical materials development with input from countries
- Begin the development of a surveillance profile to highlight surveillance activities in the Mega countries